SS-32 To Be or Not To Be: The Dilemma of Suicide in America
Presenters

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Suicide Trends and Disparities
Data from the National Vital Statistics System

Holly Hedegaard, MD, MSPH

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### 10 Leading Causes of Death, United States, 2009

<table>
<thead>
<tr>
<th></th>
<th>10-14</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65+</th>
<th>All Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Unintentional Injury</td>
<td>Malignant Neoplasms</td>
<td>Malignant Neoplasms</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
</tr>
<tr>
<td>2</td>
<td>Malignant Neoplasms</td>
<td>Homicide</td>
<td>Suicide</td>
<td>Malignant Neoplasms</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>Malignant Neoplasms</td>
<td>Malignant Neoplasms</td>
</tr>
<tr>
<td>3</td>
<td>Suicide</td>
<td>Suicide</td>
<td>Homicide</td>
<td>Heart Disease</td>
<td>Unintentional Injury</td>
<td>Chronic Lower Resp Disease</td>
<td>Chronic Lower Resp Disease</td>
<td>Chronic Lower Resp Disease</td>
</tr>
<tr>
<td>4</td>
<td>Homicide</td>
<td>Malignant Neoplasms</td>
<td>Malignant Neoplasms</td>
<td>Suicide</td>
<td>Suicide</td>
<td>Unintentional Injury</td>
<td>Cerebrovascular</td>
<td>Cerebrovascular</td>
</tr>
<tr>
<td>5</td>
<td>Congenital Anomalies</td>
<td>Heart Disease</td>
<td>Heart Disease</td>
<td>Homicide</td>
<td>Liver Disease</td>
<td>Diabetes Mellitus</td>
<td>Alzheimer’s Disease</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td>6</td>
<td>Influenza &amp; Pneumonia</td>
<td>Congenital Anomalies</td>
<td>HIV</td>
<td>Liver Disease</td>
<td>Cerebrovascular</td>
<td>Cerebrovascular</td>
<td>Diabetes Mellitus</td>
<td>Alzheimer’s Disease</td>
</tr>
<tr>
<td>7</td>
<td>Heart Disease</td>
<td>Influenza &amp; Pneumonia</td>
<td>Influenza &amp; Pneumonia</td>
<td>HIV</td>
<td>Diabetes Mellitus</td>
<td>Liver Disease</td>
<td>Influenza &amp; Pneumonia</td>
<td>Diabetes Mellitus</td>
</tr>
<tr>
<td>8</td>
<td>Chronic Lower Resp Disease</td>
<td>Complicated Pregnancy</td>
<td>Diabetes Mellitus</td>
<td>Cerebrovascular</td>
<td>Chronic Lower Resp Disease</td>
<td>Suicide</td>
<td>Nephritis</td>
<td>Influenza &amp; Pneumonia</td>
</tr>
<tr>
<td>9</td>
<td>Benign Neoplasms</td>
<td>Cerebrovascular</td>
<td>Cerebrovascular</td>
<td>Diabetes Mellitus</td>
<td>HIV</td>
<td>Nephritis</td>
<td>Unintentional Injury</td>
<td>Nephritis</td>
</tr>
<tr>
<td>10</td>
<td>Cerebrovascular</td>
<td>Chronic Lower Resp Disease</td>
<td>Liver Disease</td>
<td>Influenza &amp; Pneumonia</td>
<td>Influenza &amp; Pneumonia</td>
<td>Septicemia</td>
<td>Septicemia</td>
<td>Suicide</td>
</tr>
</tbody>
</table>
National Vital Statistics System, Mortality Data (NVSS-MCOD)

- Compiled from information on death certificates
- Includes all resident deaths in US
- Includes age, sex, race, Hispanic origin, marital status, and other demographic variables
- Death certificate includes section to describe the causal chain of events leading to the death
- Causes of death are coded using the International Classification of Diseases, Tenth Revision (ICD-10)
Age-adjusted Suicide Rate
United States, 1981-2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
Suicide Rate, by Age Group
United States, 1999-2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
Suicide Rate, by Age Group & Sex
United States, 2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
# Age-adjusted Suicide Rate, by Race/Ethnicity Group
United States, 2009

<table>
<thead>
<tr>
<th>Race/Ethnicity Group</th>
<th>Number of suicides</th>
<th>Age-adjusted rate⁺</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, non-Hispanic</td>
<td>30,813</td>
<td>14.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2,573</td>
<td>5.9</td>
</tr>
<tr>
<td>Black*</td>
<td>2,034</td>
<td>5.3</td>
</tr>
<tr>
<td>Asian/Pacific Islander*</td>
<td>934</td>
<td>6.3</td>
</tr>
<tr>
<td>American Indian/Alaska Native *</td>
<td>407</td>
<td>15.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>148</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>36,909</strong></td>
<td><strong>11.8</strong></td>
</tr>
</tbody>
</table>

*Non-Hispanic  
⁺Deaths per 100,000 population  
Data from CDC WONDER at http://wonder.cdc.gov/
Suicide Rate, by Race/Ethnicity & Age Group
United States, 2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
Percent of Suicides, by Method & Sex
United States, 2009

Male
N=29,089

- Firearm: 56%
- Suffocation: 25%
- Poisoning: 12%
- Other: 2%
- Cut/pierce: 5%

Female
N=7,820

- Firearm: 31%
- Suffocation: 38%
- Poisoning: 8%
- Other: 22%
- Cut/pierce: 2%

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
Suicide Rate, by Method & Age Group, Male
United States, 2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
Suicide Rate, by Method & Age Group, Female
United States, 2009

Rate per 100,000 population

Data from CDC WISQARS at http://www.cdc.gov/injury/wisqars/index.html
## Age-adjusted Suicide Rate*, by Method & Sex

United States, 1999-2009

<table>
<thead>
<tr>
<th>Method</th>
<th>1999</th>
<th>2004</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearm</td>
<td>11.1</td>
<td>10.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Poisoning/Overdose</td>
<td>2.1</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Suffocation/Hanging</td>
<td>3.3</td>
<td>4.1</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearm</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Poisoning/Overdose</td>
<td>1.5</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Suffocation/Hanging</td>
<td>0.6</td>
<td>0.9</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Deaths per 100,000 population

Data from CDC WONDER at [http://wonder.cdc.gov/](http://wonder.cdc.gov/)
Summary

• Suicide rates vary by
  - **Age group:** Highest rates for ages 50-54 (total and women), rates increase with age for men
  - **Sex:** Men > women
  - **Race/ethnicity:** American Indian/Alaska Natives and white, non-Hispanics > other race/ethnicity groups
  - **Geographic area:** Western US > other areas of US
  - **Mechanism used:** Men--Firearms Women--Poisoning

• Rates have been increasing over the past decade particularly for ages 45-64, with increased rates for deaths due to suffocation/hanging
For more information

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